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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/674,347	10/30/2000	Jacob Cornelis Van Der Wal	PTT-106(4025	6895
7265	7590	06/09/2006	EXAMINER	
MICHAELSON & ASSOCIATES			NG, CHRISTINE Y	
P.O. BOX 8489			ART UNIT	
RED BANK, NJ 07701			PAPER NUMBER	
			2616	

DATE MAILED: 06/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 09/674,347	Applicant(s) VAN DER WAL ET AL.	
	Examiner Christine Ng	Art Unit 2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 20 March 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 14-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 14-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 June 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 14, 15 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,912,880 to Bernstein in view of U.S. Patent No. 6,819,672 to Corneliussen.

Referring to claim 14, Bernstein discloses in Figure 4 a system in a packet based telecommunication (ATM) network comprising a measuring device (cell counter 435 and interarrival time counter 455) for measuring a time period (t) during which a predefined number (n) of packets that belong to a common connection are received or transmitted through the connection. Figure 4 discloses a "means for measuring the internal receiver time elapsed during the receipt of the predetermined number of cells" (Column 2, lines 13-15). A VCO (440) and a DAC (445) form a NCO that drives an interarrival time counter (455) to measure interarrival times, or the "times between n successive cells from a CBR message". Refer to Abstract; and Column 3, lines 1-5 and lines 25-60.

Bernstein does not disclose that the system is used for charging the packet load per connection.

Corneliussen discloses a system for charging, in a packet based telecommunication (ATM) network, the packet load per connection (VPI/VCI) with

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measuring device (Figure 7, second timer in "calculate time" block) for measuring the time period ( $T_{tot}$ ) between a number ( $m$ ) of received or transmitted packets belonging to the same connection (VPI/VC). Second timer measures  $T_{tot}$ , which is the time between the arrival of the first packet  $n=1$  to the last packet  $n=m$ . Refer to Column 3, lines 27-36 and lines 48-60; and Column 4, lines 15-24. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include that the system is used for charging the packet load per connection. One would be motivated to do so since interarrival times can be used to charge a connection; a user must be charged more if the user sends a certain number of packets in a shorter time period, since it is a faster connection.

Referring to claim 15, Bernstein disclose in Figure 4 that the system further comprises a calculation device (cell counter 435 and interarrival time counter 455), responsive to said measuring device, for calculating a ratio reflective of the number ( $n$ ) of packets per said time period ( $t$ ) so as to yield a calculation result ( $r$ ). Bernstein discloses a system in a receiver of ATM cells that "determines an average cell interarrival time by determining the amount of time required for a predetermined number of cells to arrive" (Abstract). The "average cell interarrival time" is a ratio since it is the predetermined number of cells per time interval. Refer to Abstract; and Column 3, lines 1-5 and lines 25-60.

Bernstein does not disclose supplying the calculation result ( $r$ ) to a billing system.

Corneliussen discloses that the charging system comprises calculating a ratio ( $m/T_{tot}$ ) of the number ( $m$ ) of packets per said time period ( $T_{tot}$ ) so as to yield a

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calculation result ( $m/T_{tot}$ ) and supplying the calculation result ( $m/T_{tot}$ ) to a billing system (Figure 1, charging manager). Refer to Column 1, lines 43-46; Column 3, lines 27-36 and lines 48-60; and Column 4, lines 15-24. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include that the system further comprises a calculation device, responsive to said measuring device, for calculating a ratio reflective of the number ( $N$ ) of packets per said time period ( $t$ ) so as to yield a calculation result ( $r$ ) and supplying the calculation result ( $r$ ) to a billing system. One would be motivated to do so in order to in order to utilize the interarrival time interval to charge the user; a user must be charged more if the user sends a certain number of packets in a shorter time period since it is a faster connection.

Referring to claim 18, Bernstein does not disclose that the system further comprises an aggregation device for aggregating the calculation result so as to form an aggregated result and passing the aggregated result to the billing system.

Corneliussen discloses an aggregation device (Figure 7, "current volume and time" block) for aggregating the calculation result ( $m/T_{tot}$ ) and passing on the aggregated result ( $m/T_{tot}$ ) to the billing system (Figure 1, charging manager). "The value of the second timer ( $T_{tot}$ ) is provided when the metering equipments gets a request for the current duration for the connection" (Column 3, lines 45-47). The "current volume and time" block reports the aggregated (current)  $m/T_{tot}$  value to the charging meter. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include that the system further comprises an aggregation device for aggregating the calculation result so as to form an aggregated

result and passing the aggregated result to the billing system. One would be motivated to do so in order to provided an updated calculation result to the billing system so the user charge can be based on a current record of resource usage.

3. Claims 16, 17, 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,912,880 to Bernstein in view of U.S. Patent No. 6,819,672 to Corneliussen, and in further view of U.S. Patent No. 6,338,046 to Saari et al.

Referring to claims 16 and 17, Bernstein does not disclose system packets which comprise an indication of the capacity or priority requested by the user (claim 9) and assigned by the telecommunication system (claim 10), the system further comprising a first detection device (claim 9) and a second detection device (claim 10), for reading out the indication out from the system packets and transferring the indication to the billing system.

Saari et al disclose in Figure 2 system packets (billing cell 31) which comprise an indication (connection information 38) of the capacity or priority requested by the user or assigned by the telecommunication system, characterized by a detection device (node 24) for reading out the indication (connection information 38) out of the system packets (billing cell 31) and transferring that indication to the billing system (access network billing system; Figure 3, Element 40). The connection information 38 includes a connection type field 31 that specifies service parameters such as maximum peak rate, acceptable cell loss ratio, the service class used (CBR, VBR, UBR or ABR) or other ATM traffic parameters. Refer to Column 5, line 60 to Column 6, line 2. A node 24

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receives the billing cell 31, detects the connection information 38 and then copies the connection information 38 from the billing cell 31 to the billing unit 34. The billing unit 34 then transfers the charging information to a common billing system (Figure 3, Element 40). Refer to Column 5, lines 16-27 and Column 6, lines 26-28. The connection information 38 in billing cell 31 describes the general level of service expected (assigned by the telecommunication system, claim 10) or required (requested by the user, claim 9) by a network user when using a particular connection. Refer to Column 5, lines 56-60. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include system packets which comprise an indication of the capacity or priority requested by the user (claim 9) and assigned by the telecommunication system (claim 10), the system further comprising a first detection device (claim 9) and a second detection device (claim 10), for reading out the indication out from the system packets and transferring the indication to the billing system; the motivation being that this allows the user or the telecommunication system to assign certain traffic parameters to the connection, depending on the type of traffic being transmitted, and for different traffic parameters to be charged differently.

Referring to claims 19 and 20, Bernstein does not disclose an aggregation device for aggregating the capacity or priority indications provided by the first detection device (claim 9) and a second detection device (claim 10) so as to form aggregated indications and passing on the aggregated indications to the billing system.

Saari et al disclose in Figure 3 an aggregation device (billing units 34a-34d) along a path of nodes 24a-24d from a source 26a to a destination 26b for aggregating

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the capacity or priority indications (connection information; Figure 2, Element 38) and passing on the aggregated indications to the billing system (node 40). A first billing unit 34a generates charging information using the billing cell information it received at a first node 24a and a charging strategy. The first billing unit 34a then passes the updated billing cell to a second billing unit 34b which then generates charging information based on the billing cell contents and a different charging strategy. This is repeated for billing units 34c and 34d. "After acquiring the relevant billing information from each of the billing units 34a-34d associated with each of the nodes 24a-24d defining the connections between the users 26a and 26b, the network billing system 40 computes the total cost for transmitting the data between source and destination locations 26a, 26b" (Column 7, lines 19-26). Refer to Column 6, line 49 to Column 7, line 26.

Therefore, it would have been obvious to one skilled in the art at the time the invention was made to include an aggregation device for aggregating the capacity or priority indications provided by the first detection device (claim 9) and a second detection device (claim 10) so as to form aggregated indications and passing on the aggregated indications to the billing system; the motivation being that this allows for charging a connection that spans over a series of nodes that operate under different charging strategies. Charging information can be accumulated from one node to the next node to allow for accurate billing of the full connection.




**Conclusion**

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christine Ng whose telephone number is (571) 272-3124. The examiner can normally be reached on M-F; 8:00 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on (571) 272-3155. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

C. Ng   
May 19, 2006

  
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